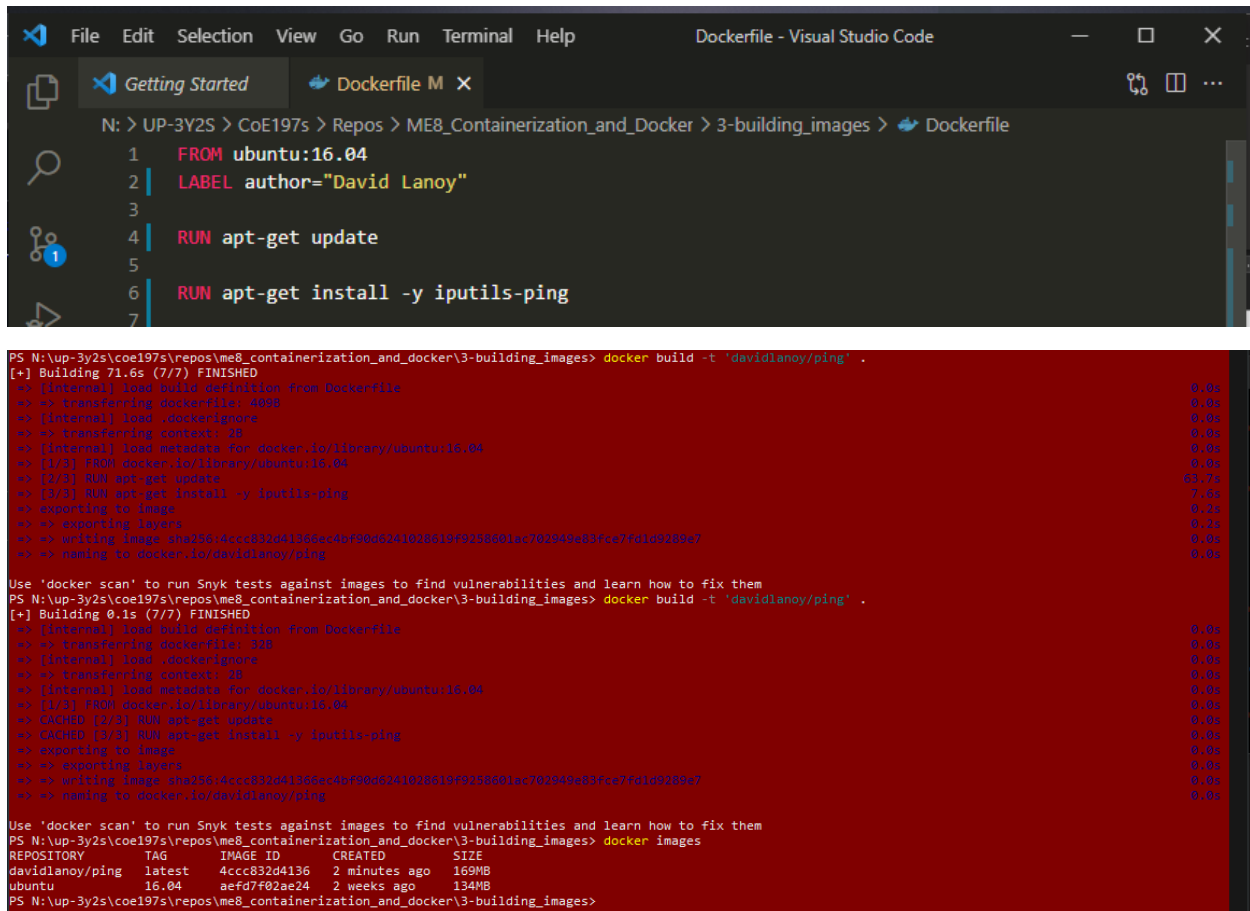


Building the Dockerfile



The screenshot shows the Visual Studio Code interface with a Dockerfile open in the editor. The Dockerfile contains the following instructions:

```
1 FROM ubuntu:16.04
2 LABEL author="David Lanoy"
3
4 RUN apt-get update
5
6 RUN apt-get install -y iputils-ping
7
```

The terminal output shows the build process for the image 'davidlanoy/ping'.

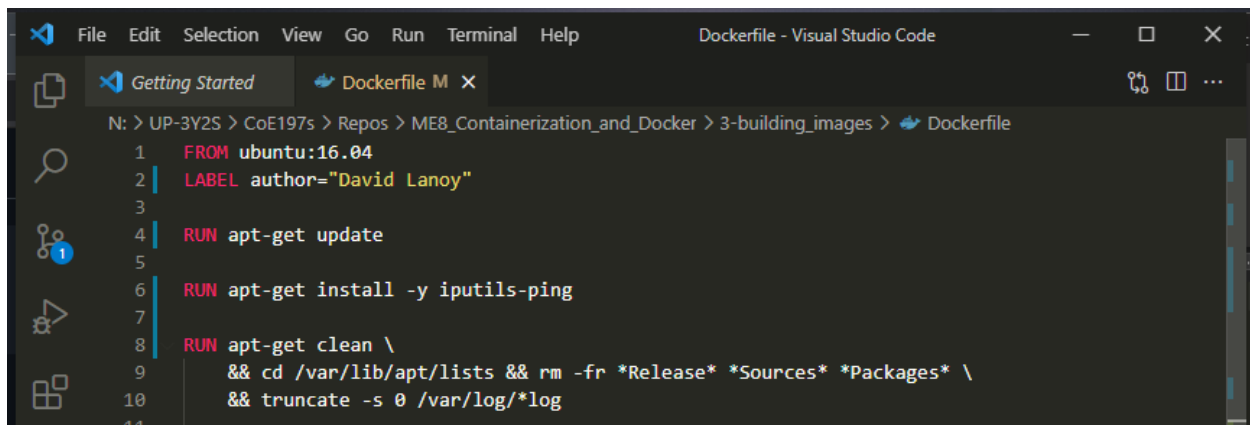
```
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker build -t 'davidlanoy/ping' .
[+] Building 71.6s (7/7) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 489B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:16.04
=> [1/3] FROM docker.io/library/ubuntu:16.04
=> [2/3] RUN apt-get update
=> [3/3] RUN apt-get install -y iputils-ping
=> exporting to image
=> exporting layers
=> writing image sha256:4ccc832d41366e4bf90d6241028619f9258601ac701949e83fca7fd1d9289e7
=> naming to docker.io/davidlanoy/ping

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker build -t 'davidlanoy/ping' .
[+] Building 0.1s (7/7) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 32B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:16.04
=> [1/3] FROM docker.io/library/ubuntu:16.04
=> CACHED [2/3] RUN apt-get update
=> CACHED [3/3] RUN apt-get install -y iputils-ping
=> exporting to image
=> exporting layers
=> writing image sha256:4ccc832d41366e4bf90d6241028619f9258601ac701949e83fca7fd1d9289e7
=> naming to docker.io/davidlanoy/ping

Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
davidlanoy/ping latest 4ccc832d4136 2 minutes ago 169MB
ubuntu 16.04 aefd7f02ae24 2 weeks ago 134MB
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images>
```

Optimizing the Dockerfile

No improvement



The screenshot shows the Visual Studio Code interface with a Dockerfile open in the editor. The Dockerfile contains the following instructions:

```
1 FROM ubuntu:16.04
2 LABEL author="David Lanoy"
3
4 RUN apt-get update
5
6 RUN apt-get install -y iputils-ping
7
8 RUN apt-get clean \
9     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
10    && truncate -s 0 /var/log/*log
11
```

```
[+] Building 0.1s (8/8) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 300B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:16.04
=> [1/4] FROM docker.io/library/ubuntu:16.04
=> CACHED [2/4] RUN apt-get update
=> CACHED [3/4] RUN apt-get install -y iputils-ping
=> CACHED [4/4] RUN apt-get clean && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* && truncate -s 0 /var/log/*log
=> exporting to image
=> => exporting layers
=> => writing image sha256:63b9db0fca13
=> => naming to docker.io/davidlanoy/ping
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker images
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE
davidlanoy/ping     latest         63b9db0fca13   About a minute ago   169MB
<none>              <none>        4ccc832d4136   8 minutes ago       169MB
ubuntu              16.04         aefd7f02ae24   2 weeks ago        134MB
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images>
```

Only 4MB larger

```
File Edit Selection View Go Run Terminal Help Dockerfile - Visual Studio Code
Getting Started Dockerfile M X
N: > UP-3Y2S > Coe197s > Repos > ME8_Containerization_and_Docker > 3-building_images > Dockerfile
1 FROM ubuntu:16.04
2 LABEL author="David Lanoy"
3
4 RUN apt-get update \
5     && apt-get install -y iputils-ping \
6     && apt-get clean \
7     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
8     && truncate -s 0 /var/log/*log
```

```
[+] Building 131.9s (6/6) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 350B
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [internal] load metadata for docker.io/library/ubuntu:16.04
=> [2/2] FROM docker.io/library/ubuntu:16.04
=> [2/2] RUN apt-get update && apt-get install -y iputils-ping && apt-get clean && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Pack
=> exporting to image
=> => exporting layers
=> => writing image sha256:f8843f0fdad9
=> => naming to docker.io/davidlanoy/ping
Use 'docker scan' to run Snyk tests against images to find vulnerabilities and learn how to fix them
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker images
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE
davidlanoy/ping     latest         fe843f0fdad9   2 minutes ago   138MB
<none>              <none>        63b9db0fca13   8 minutes ago   169MB
<none>              <none>        4ccc832d4136   15 minutes ago  169MB
ubuntu              16.04         aefd7f02ae24   2 weeks ago    134MB
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images>
```

Other Dockerfile directives

```
File Edit Selection View Go Run Terminal Help Dockerfile - Visual Studio Code
Getting Started Dockerfile M X
N: > UP-3Y2S > CoE197s > Repos > ME8_Containerization_and_Docker > 3-building_images > Dockerfile
1 FROM ubuntu:16.04
2 LABEL author="David Lanoy"
3
4 ENV PING_TARGET "google.com"
5
6 RUN apt-get update \
7     && apt-get install -y iputils-ping \
8     && apt-get clean \
9     && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* \
10    && truncate -s 0 /var/log/*log
11
12 CMD ["sh", "-c", "ping $PING_TARGET"]
13
14
```

```
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker build -t 'davidlanoy/ping' .
[+] Building 98.2s (6/6) FINISHED
==> [internal] load build definition from Dockerfile                                0.0s
==> ==> transferring dockerfile: 300B                                              0.0s
==> [internal] load .dockerignore                                                  0.0s
==> ==> transferring context: 2B                                                    0.0s
==> [internal] load metadata for docker.io/library/ubuntu:16.04                  0.0s
==> CACHED [1/2] FROM docker.io/library/ubuntu:16.04                             0.0s
==> [2/2] RUN apt-get update && apt-get install -y iputils-ping && apt-get clean && cd /var/lib/apt/lists && rm -fr *Release* *Sources* *Packages* && truncate -s 0 /var/log/*log 98.0s
==> exporting to image                                                            0.1s
==> ==> exporting layers                                                            0.1s
==> ==> writing image sha256:111c917c9a0e9bfbf09087d8c2b6247f86cd7a0ca3d3ba819e2e0f62267b71a 0.0s
==> ==> naming to docker.io/davidlanoy/ping                                       0.0s
```

```
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images> docker run -it davidlanoy/ping
PING google.com (142.250.199.78) 56(84) bytes of data:
64 bytes from 142.250.199.78: icmp_seq=1 ttl=37 time=40.1 ms
64 bytes from 142.250.199.78: icmp_seq=2 ttl=37 time=40.2 ms
64 bytes from 142.250.199.78: icmp_seq=3 ttl=37 time=40.6 ms
^X64 bytes from 142.250.199.78: icmp_seq=4 ttl=37 time=40.6 ms
^C
--- google.com ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3004ms
rtt min/avg/max/mdev = 40.192/40.422/40.650/0.214 ms
PS N:\up-3y2s\coe197s\repos\me8_containerization_and_docker\3-building_images>
```